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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------------------|-----------------------------|
| 10/578,097 | 05/03/2006 | Hiroshi Kajitani | 8008-1105 | 4691 |
| 466 7590 11/26/2010 YOUNG & THOMPSON 209 Madison Street Suite 500 Alexandria, VA 22314 | | | EXAMINER YANCHUK, STEPHEN J | |
| | | | ART UNIT 1729 | PAPER NUMBER |
| | | | NOTIFICATION DATE 11/26/2010 | DELIVERY MODE ELECTRONIC |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DocketingDept@young-thompson.com

Office Action Summary

Application No.

10/578,097

Applicant(s)

KAJITANI ET AL.

Examiner

STEPHEN YANCHUK

Art Unit

1795

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 22-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 22-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. All outstanding objections and rejections are withdrawn in light of applicant's amendment filed on 10/25/2010
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in prior office action.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/25/2010 has been entered.

Claim Rejections - 35 USC § 112

Previous rejection to claims 22, 25, and 28 have been removed due to amendment.

Claim Rejections - 35 USC § 102

Claims 1-14, 23-24, 27, and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakanishi et al. (PGPUB 2004/0229093).

Claim 1-5, 8, 13-14: Nakanishi teaches a fuel cell (anode and cathode) system with water absorbing members (70) arranged outside the oxidizing gas conduits (36). These members are attached to a roller (74) and rotated to approach and depart from the electrode [Abstract, Figure 3]. The absorbent is rotated to the other side of the roller to be dried [Figure 4]. The prior art's absorbent element is interpreted to be a "Sheet" since it is located on a rotating belt with a plane exposed to the electrode opening. Sheet does not add structural limitation to overcome the prior art of record. "A vicinity of" also does not overcome the prior art of record since the absorbent plane rotates to approach and depart from the electrode while collecting byproducts.

The oxidant path consists of some form of input device (IE a blower), the path through the electrode assembly, and the exhaust portion. The applicant has not claimed that the "oxidant path" to be the path through the electrode assembly as argued. Nakanishi teaches a movable absorbent material in the oxidant path sandwiched between the electrode and the outer wall of the oxidant path's exhaust pipe.

Claim 6-7, 9-12: A controller for the rotating wheel relies on level of moisture (humidity) [Paragraph 10]. This controller has a control unit that stores data [Paragraph 27]. The controller controls valve [Paragraph 31]. The controls also comprise voltage sensors and are therefore capable of detecting temperature [Paragraph 35].

Claim 24: The above rejection for claim 1 applies for this rejection. The further limitation is taught by Nakanishi wherein the side edge of the electrode is the surface of which the absorbent sheet opposes.

Claim 27: Claim 1 rejection is to be repeated for this rejection. Interpretation of Nakanishi shows a position where the absorbent is in contact with the oxidant electrode side surface and then is rotated away from the oxidant electrode. The absorbent is located on a belt and exists between these two positions.

Claim 23, 26, 29: The absorbent element is attached to the rotating belt and has dimensions that make it a sheet [Paragraph 25].

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 22, 25, 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakanishi et al. (PGPUB 2004/0229093 as applied to claim 1, 24, 27 above, and further in view of Yamada et al (USPAT 5,432,023).

Claim 22, 25, 28: Nakanishi teaches an absorbent material being made of woven fabric or non-woven fabric of glass fibers, ceramic fibers, or any other suitable fibers that absorb water and aid in wicking/capillary motion [Paragraph 25]. Nakanishi fails to teach the specific material for water absorbing and wicking.

Yamada teaches a water-absorbing substance to be polyethylene acrylonitrile, acrylates, silica hydrogels, and gelatins [Col 40, 44]. It would have been obvious for one of ordinary skill in the art to use Yamada's specific material selection for Nakanishi's

general selection because Yamada teaches a water wicking system that removes fuel cell water away from the cell [Col 38-44].

Response to Arguments

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., absorbent existing in the region between the separator plate and electrode in the fuel cell stacking direction) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Fig 1 of the instant application overcomes the prior art presented if the absorbent moving part is claimed to be in the oxidant path between the oxidant electrode and separator (312).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEPHEN YANCHUK whose telephone number is (571)270-7343. The examiner can normally be reached on Monday through Thursday 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ula Ruddock can be reached on 571-277-1481. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/STEPHEN YANCHUK/
Examiner, Art Unit 1795

/Ula C Ruddock/
Supervisory Patent Examiner, Art Unit 1795